



## PATENT ABSTRACTS OF JAPAN

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## (57) Abstract:

**PROBLEM TO BE SOLVED:** To provide an apparatus for stimulating a heart for suppressing the dysfunction in the heart muscle and reducing burden to the body by including voltage change of a rise and fall in the voltage signal having a derivation part, minimizing the derivative absolute value less than a derivative absolute value which causes the trigger of patient's heartbeat, and specifying the connection time of the voltage heart to a particular value.

**SOLUTION:** The atrium function is measured between electrodes ERA/IRA, and the ventricle function is measured between electrodes ERV/IRV, and the signal is detected in a detection circuit 2. The detection circuit 2 compares the coming signal with a qualification memorized in the circuit, and if the signal meets one of the qualifications, it is supplied to a control circuit 3. When the qualification to send the pacepulse to the electrode

ERA or the electrode ERV is satisfied, the control circuit 3 starts to move a pacepulse generator 4. On this occasion, the derivative absolute value must be less than the derivative absolute value which causes the trigger of patient's heartbeat, and the voltage signal must have at least 30 ms connection time during the start to the end.

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